

**AMENDMENTS TO THE SPECIFICATION**

Please replace paragraph [0055] with the following amended paragraph:

[0055] Accordingly one very low complexity approximation to the expectation value is a three part piece-wise ~~linear~~-function that maps  $s$  to 0 (or nearly 0) if  $v_i$  is between plus and minus  $\sigma_i^2/a_{\pm}$ , maps  $s$  to  $v_i - \sigma_i^2/a_{\pm}$ , if  $v_i > \sigma_i^2/a_{\pm}$ , and maps  $s$  to  $v_i + \sigma_i^2/a_{\pm}$ , if  $v_i < -\sigma_i^2/a_{\pm}$ . This approximation is very accurate if the absolute value of  $v_i$  is more than two times  $\sigma_i^2/a_{\pm}$ , or less than a third of  $\sigma_i^2/a_{\pm}$ . Of course, other approximations to the integral can be used to generate the approximate expectation of  $s$ , that will be accurate within respective regimes as desired.